



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE
BOARD OF PATENT APPEALS AND INTERFERENCES

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|---------------------|---|-------------------|---------------------------|
| Applicant: | David Curt Morris | Group Art: | 3745 |
| Serial No.: | 09/328,931 | Examiner: | Christopher M. Verdier |
| Filing Date: | 06/09/1999 | Docket: | MO1.003 |
| Title: | HELICOPTER BLADE ASSEMBLY ADAPTED TO PERMIT RAPID FORWARD FLIGHT | | |

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Date: 03/13/2003

Board of Patent Appeals and Interferences
Washington, D.C. 20231

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|----|-------------------------------|---|--------------------|
| | <u>Mr. David Curt Morris,</u> |) | SUPPLEMENTAL |
| | Appellant |) | APPEAL BRIEF |
| 15 | vs. |) | UNDER 37 CFR 1.191 |
| | United States Patent Office, |) | |
| | Appellee. |) | |

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Introduction:

This Supplemental Appeal Brief is submitted in triplicate. This Appeal Brief is filed on June 14, 2002. All claims under Appeal have been twice rejected.

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Real Party in Interest:

The Real Party in Interest is David Curt Morris, a resident of New York, New York, the inventor of the present invention.

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Related Appeals and Interferences:

There are no known related Appeals or Interferences known to Appellant.

15 Status of the Claims:

Claim 1 has been amended since it was originally filed, but has been twice rejected in its present form. Claim 2 is as originally filed and has twice been rejected as it stands dependent on claim 1 in its present form. Claims 3 and 4 were added by amendment and have now been twice rejected.

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Status of the Amendments:

No amendment after final has been filed.

25 Summary of the Invention:

The present invention is a helicopter blade assembly (Reference No. 10 of Figs. 1A, 1B, 2A, 3A, 3B, 4A, 4B, 5A, 5B, 6A and 6B) for a craft with either one or two blade-sets. The blade assembly is constructed so that the rotation of the blades provides lift during takeoff and landing (Page 5, lines 29-30). During rapid forward flight, however, the blades sweep out the shape of a virtual disk that acts as a lifting body (Page 8, lines 11-12), so that as the virtual disk cuts rapidly through the air it generates lift (Page 5, lines 34-37; Page 8, lines 11-12).

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ISSUES

1. Issues 1-8 remain as stated in the brief filed on 9/27/2002.

5 9. Are any new issues raised by Examiner's analysis of the means plus function clauses of the claims.

GROUPING OF CLAIMS

10 Claims 1-4 form a single group insofar as they all stand rejected for lack of novelty under 35 USC §102. Claim 4 forms a subgroup because it is also rejected due to supposed indefiniteness.

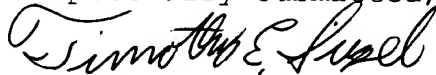
ARGUMENT

15 The argument section remains the same as in the brief filed 9/27/2003, with the exception of the following addition.

Argument With Respect to Issue 9:

20 Examiner has chosen to give the means-plus-function clauses of the claims a broad scope. Appellant does not object to this broad scope, but agrees with it. Accordingly, no new issues are raised by the Examiner's new grounds of rejection.

25 Respectfully submitted,



Timothy E. Siegel

Attorney for Appellant

Reg. No.: 37,442

30 1868 Knapps Alley, Suite 206

West Linn, OR 97068-4644

Tel.: 503.650.7411

Fax: 503.650.9886

APPENDIX

CLAIMS UNDER APPEAL

5 1. A helicopter blade assembly for permitting rapid forward flight in a helicopter having separate means for providing a forward impetus, comprising:

 substantially vertical mast; and
a set of rotatable blades which sweep out the shape of a
10 virtual disk having the properties of a lifting body when they are rapidly rotated by the mast, so that as the virtual disk is pushed translationally through the air it thereby generates lift.

15 2. The assembly of claim 1, further comprising means for controlling the camber of the blades, thereby controlling the shape of the virtual disk.

 3. The helicopter blade assembly of claim 2,
20 wherein said blades have outward tips and said means for controlling the camber of the blades selectively introduce a downward bending near said outward tips of said blades.

 4. The helicopter blade assembly of claim 1,
25 wherein said virtual disk shape swept out has a center and a circular edge and is substantially flat at and near said center and slopes gently downwardly near said circular edge.